

**WHAT IS CLAIMED IS:**

1. A secure communications system comprising:  
a master agent including a control module, a receiver connected to said control module, a transmitter connected to said control module and a spreading sequence device connected to said control module for generating at least one spreading sequence to be transmitted from said master agent; and  
at least two first slave agents providing a first communications network with said master agent, each of said slave agents provided with a control module, a receiver connected to said control module, a transmitter connected to said control module, a memory device for storing at least one spreading sequence transmitted from said master agent, a device for producing an outgoing message spread by at least one spreading sequence and a device for receiving and despreding an incoming message from one of the other said first slave agents.
2. The secure communications system in accordance with claim 1, further including a device in said master agent for randomly generating said spreading sequences.
3. The secure communications system in accordance with claim 1, further including a memory device in said master agent provided with an algorithm for producing said spreading sequences.
4. The secure communications system in accordance with claim 1, further including a memory device storing a plurality of spreading sequences.
5. The secure communications system in accordance with claim 1, wherein said master agent is provided with a device for producing a new spreading sequence on a periodic basis, to be transmitted to each of said slave agents.
6. The secure communications system in accordance with claim 1, wherein each of said slave agents is provided with a

device for transmitting to said master agent on a periodic basis a number of faulty transmitted data frames, said master agent producing and transmitting to each of said slave agents a new spreading sequence when said number of said faulty transmitted data frames exceeds a predetermined threshold level.

7. The secure communications system in accordance with claim 1, wherein each of said slave agents is provided with a device for producing an encrypted message for transmission and a device for decrypting a received message.

8. The secure communications system in accordance with claim 1, further including at least two additional slave agents providing a second communications network in conjunction with said master agent, each of said additional slave agents provided with a control module, a receiver connected to said control module, a transmitter connected to said control module, a memory device for storing at least one spreading sequence transmitted from said master agent, a device for producing an outgoing message spread by at least one spreading sequence and a device for receiving and despreding an incoming message from one of the other said additional slave agents;

wherein said master agent produces a first spreading sequence to be used only within said first communications network and said master agent produces a second spreading sequence to be used only within said second communications network.

9. The secure communications system in accordance with claim 8, wherein said second communications network is a complete subset of said first communications network allowing said additional slave agents to receive and transmit messages from slave agents in both said first communications network on said second communicating network.

10. The communications system in accordance with claim 1, wherein said master agent is provided with a device from

encrypting said spreading sequence prior to transmitting said spreading sequence to said slave agents and said slave agents provided with a device for decrypting said spreading sequence.

11. The communications system in accordance with claim 1, including at least two additional second slave agents in a second communications network which is a subset of said first communications network, each of said second slave agents provided with a control module, a receiver connected to said control module, a transmitter connected to said control module, a memory device for storing at least two spreading sequences transmitted from said master agent, a device for producing an outgoing message spread by at least one spreading sequence, and a device for receiving and despreding an incoming message from one of the other first and second slave agents; and

wherein said master agent generates a first spreading sequence used exclusively by said second slave agents to communicate within said subset of said first communications network, said master agent further generates a second spreading sequence used by both said first slave agents and said second slave agents.

12. A secure communications system comprising:

a first master agent including a control module, a receiver connected to said control module, a transmitter connected to said control module and a spreading sequence device connected to said control module for generating at least one spreading sequence to be transmitted from said first master agent;

at least two first slave agents providing a first communications network with said first master agent, each of said first slave agents provided with a control module, a receiver connected to said control module, a transmitter connected to said control module, a memory device for storing at least one spreading sequence transmitted from said first master agent, a device for producing an outgoing message spread by at least one

spreading sequence and a device for receiving and despreding an incoming message from one of the other said first slave agents;

a second master agent including a control module, a receiver connected to said central module, a transmitter connected to said control module and a spreading sequence device connected to said control module for generation at least one spreading sequence to be transmitted from said second master agent;

at least two second slave agents providing a second communications network with said second master agent, each of said second slave agents provided with a control module, a receiver connected to said control module, a memory device for storing at least one spreading sequence transmitted from said second master agent, a device for producing an outgoing message spread by at least one spreading sequence and a device for receiving and despreding an incoming message from one of the other said second slave agents; and

a third communications device between said first and second master agents, said third communications device transmitting information between said first and second master agents.

13. The secure communications system in accordance with claim 12, wherein each of said first and second master agents provided with a means for ensuring that the spreading sequences generated by said first master agent is different than the spreading sequences generated by said second master agent.

14. A method for transmitting messages in a communications system including a master agent and at least two slave agents, comprising the steps of:

generating a first spreading sequence in said master agent;

transmitting said first spreading sequence from said master agent to said slave agent;

storing said first spreading sequence in a memory device provided in each of said slave agents;

producing an outgoing message in one of said slave agents spread by said first spreading sequence; and

transmitting said outgoing message from one of said slave agents to at least one other slave agent.

15. The method for transmitting messages in accordance with claim 14, further including the step of periodically generating and transmitting additional spreading sequences from said master agent to said slave agents to be substituted for said first spreading sequences.

16. The method for transmitting messages in accordance with claim 15, further including the step of randomly generating each of said spreading sequences.

17. The method for transmitting messages in accordance with claim 15, further including the step of generating each of said spreading sequences using a particular algorithm.

18. The method for transmitting messages in accordance with claim 15, further including the steps of:

sensing a number of faulty transmitted data frames;

comparing said faulty transmitted data frames with a predetermined threshold level; and

producing and transmitting a new spreading sequence from said master agent to each of said slave agents when said predetermined threshold level is exceeded.

19. The method for transmitting messages in accordance with claim 14, including the step of encrypting said outgoing message.